

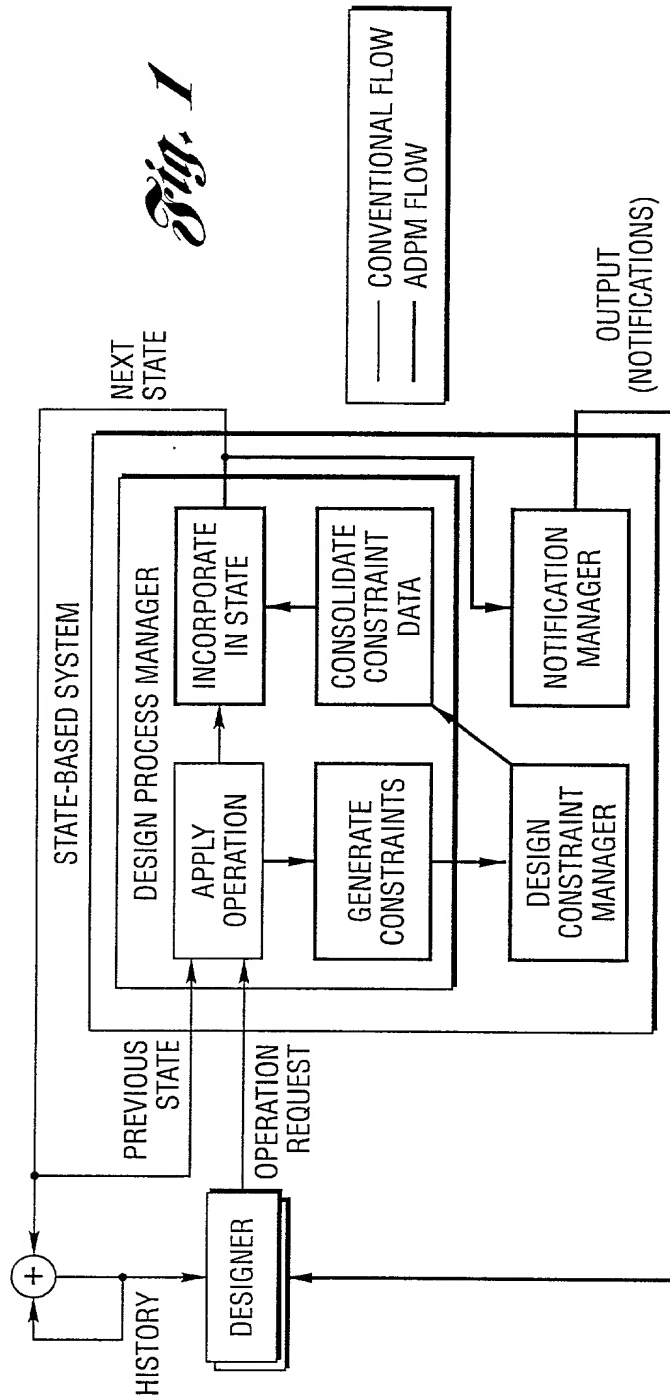
Title: Method And System For Providing Constraint-Based Guidance To A Designer In A Collaborative Design Environment

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Application Serial No.: / Atty. Docket No.: UOM 0246 PUS

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*Fig. 1*



**Domain:** Amplifier+Mixer

**Object name:** LNA+Mixer

**Version number:** 1.0.1 (current)

Diff-pair-W	String	AbstractionLevels: Transistor, Geometry
Freq-ind	Consistent values: (2.500000 3.698225)	
LNA-gain	String	AbstractionLevels: Transistor, Geometry
LNA-power	Consistent values: (0.174255 0.500000)	
LNA-Zin	String	AbstractionLevels: Geometry
	Consistent values: (51.121929 181.420120)	
	String	AbstractionLevels: Geometry
	Consistent values: (164.438431 200.000000)	
	String	AbstractionLevels: Geometry
	Consistent values: (50.000000 73.964500)	

**Done** **View...** **Create New Version...**

Fig. 2

Constraints and properties for problem:

Design a Amplifier+Mixer at the Geometry level

CONSTRAINTS

Constraint/Argument	Status/Value
► MaxLNA-P-C11	Consistent
► MinLNA-Zin-C8	Consistent
► TotalGain-C12	Consistent
► LNA-Zin-C9	Consistent
► LNAGain-C10	Consistent
► LNAPower-C7	Consistent

PROPERTIES

Property	Value	Assigned	Target
▼ P.Diff-pair-W8	3	<no value assigned>	LNA+Mixer
LNAPower-C7		Consistent	
LNA-Zin-C9		Consistent	
LNAgain-C10		Consistent	
► P.LNA-power9	2	<no value assigned>	LNA+Mixer
► P.LNA-Zin10	2	<no value assigned>	LNA+Mixer
► P.MinLNA-Zin11	1	50	LNA+Mixer
► P.LNA-gain12	2	<no value assigned>	LNA+Mixer
▼ P.Freq-ind13	2	<no value assigned>	LNA+Mixer
LNAgain-C10		Consistent	

Close

View property history...

Constraints and properties for problem: Design a Amplifier+Mixer at the Geometry level

CONSTRAINTS

▶ LNA-Zin-C9	Violated	
▼ TotalGain-C13	Violated	
P.Mintransceiver-gain16	32	
▶ P.LNA-gain12	<no value assigned>	
	[48.000000 48.000000] required by LNAGain-C10	
▶ P.Insertion-loss6	<no value assigned>	
	[-19.121931 -19.121931] required by FilterLoss-C4	
▶ LNAGain-C10	Consistent	
LNAPower-C7	Consistent	

PROPERTIES

Property/Constraint	# c's	Value/Status	Object	Connected violations
▶ P.Diff-pair-W6	3	2.5	LNA+Mixer	2
▶ P.LNA-power9	2	<no value assigned>	LNA+Mixer	1
▶ P.LNA-Zin10	2	<no value assigned>	LNA+Mixer	1
▶ P.MinLNA-Zin11	1	40	LNA+Mixer	1
▶ P.LNA-gain12	2	<no value assigned>	LNA+Mixer	1
▶ P.Freq-ind13	2	0.2	LNA+Mixer	1
▶ P.MaxLNA-power14	1	200	LNA+Mixer	
▶ P.Maxfreq-ind15	1	0.5	LNA+Mixer	

Close

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*Fig. 4*